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US EPA RECORDS CENTER REGION 5



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Washington, D.C. 20530

April 2, 1985

The Honorable Crane Winton
1307 Mt. Curve Avenue
Minneapolis, Minnesota 55403

Re: United States v. Reilly Tar & Chemical Corp.
no. 4-80-469 (D. Minn.)

Dear Judge Winton:

In anticipation of our April 4, 1985 meeting concerning settlement, I thought I would write to you to describe the United States' perspective on this case and on settlement.

1. The Case.

As you know, there are two principal sources of pollution at the former Reilly Tar & Chemical Corporation ("Reilly") plant site in St. Louis Park. The first is a 909 foot well, which Reilly used in its production processes from 1917 to 1972. That well, often called Well 23, is a multi-aquifer well, which means that it was open to several aquifers, during the years Reilly's plant was in operation. Until 1979, when it was partially sealed, Well 23 was open to all of the aquifers beneath the site. In 1982, when the United States and the State of Minnesota cleaned out Well 23, we found that 160 feet of the well was plugged with coal tar, the material manufactured by Reilly. Coal tar contains many compounds including phenolics and polynuclear aromatic hydrocarbons ("PAH"). Some PAH are carcinogens; others while not carcinogenic themselves, promote cancer. Many PAH's have not been fully tested and may indeed be carcinogens. For example, only within the last year have studies shown that another PAH, fluoranthene, is a carcinogen as well.

Although Well 23 has been cleaned out, much of the pollution in the well has already entered the aquifer system. PAH's originating from Well 23 have already been found in drinking water wells in the Prairie du Chien-Jordan aquifer both to the north of the site (wells SLP 7, 9, 10 and 15) and

to the south (wells SLP 4 and 5, and H3). Contaminants have entered the aquifers through Well 23 over many years and will move through the groundwater to these wells and other drinking water wells over time. We also know that the Iron-ton-Galesville aquifer has been contaminated with material from Well 23 and we have reason to believe that the pollution from Well 23 has entered the Mt. Simon-Hinckley aquifer.

The second major source of pollution is the swamp to the south of the former Reilly plant site. Throughout the plant's operation, Reilly discharged contaminated wastewater to the swamp. Although Reilly installed a primitive wastewater treatment system in 1941, plant documents and deposition testimony show that Reilly did not clean or maintain that equipment. As a result, the swamp became heavily contaminated. Not only is the surface contamination at the swamp a serious problem, but the swamp has heavily contaminated two shallow aquifers, the drift and the Platteville, and contaminants have already reached the aquifer beneath them, the St. Peter. */

In sum, contaminants from the Reilly site, discharging through Well 23 and the swamp may have contaminated every aquifer system in the St. Louis Park area. The shallow aquifers are heavily contaminated, and contamination in the Prairie du Chien-Jordan aquifer, the principal drinking water aquifer, is wide spread.

2. The Statutes and their Purposes

In order to deal with problems of contaminated soil and groundwater, such as that found at the former Reilly plant site and at other hazardous waste sites throughout the nation, Congress enacted two statutes. In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) in order to regulate the treatment and disposal of hazardous waste. Section 7003 of RCRA, 42 U.S.C. §6973, provided the authority for the United States to sue to enjoin the improper disposal of hazardous waste. After RCRA's enactment, Congress recognized that RCRA did not provide sufficient authority to adequately deal with abandoned waste disposal and industrial sites, which were threatening the environment, particularly groundwater.

*/ The aquifers underlying St. Louis Park are in order from the shallowest to the deepest: the drift, the Platteville, the St. Peter, the Prairie du Chien-Jordan, the Iron-ton-Galesville and the Mt. Simon-Hinckley. A copy of the stratigraphic column is enclosed, as well as a map of well locations in the Prairie du Chien-Jordan aquifer.

DEPTH BELOW
LAND SURFACE,
IN FEET

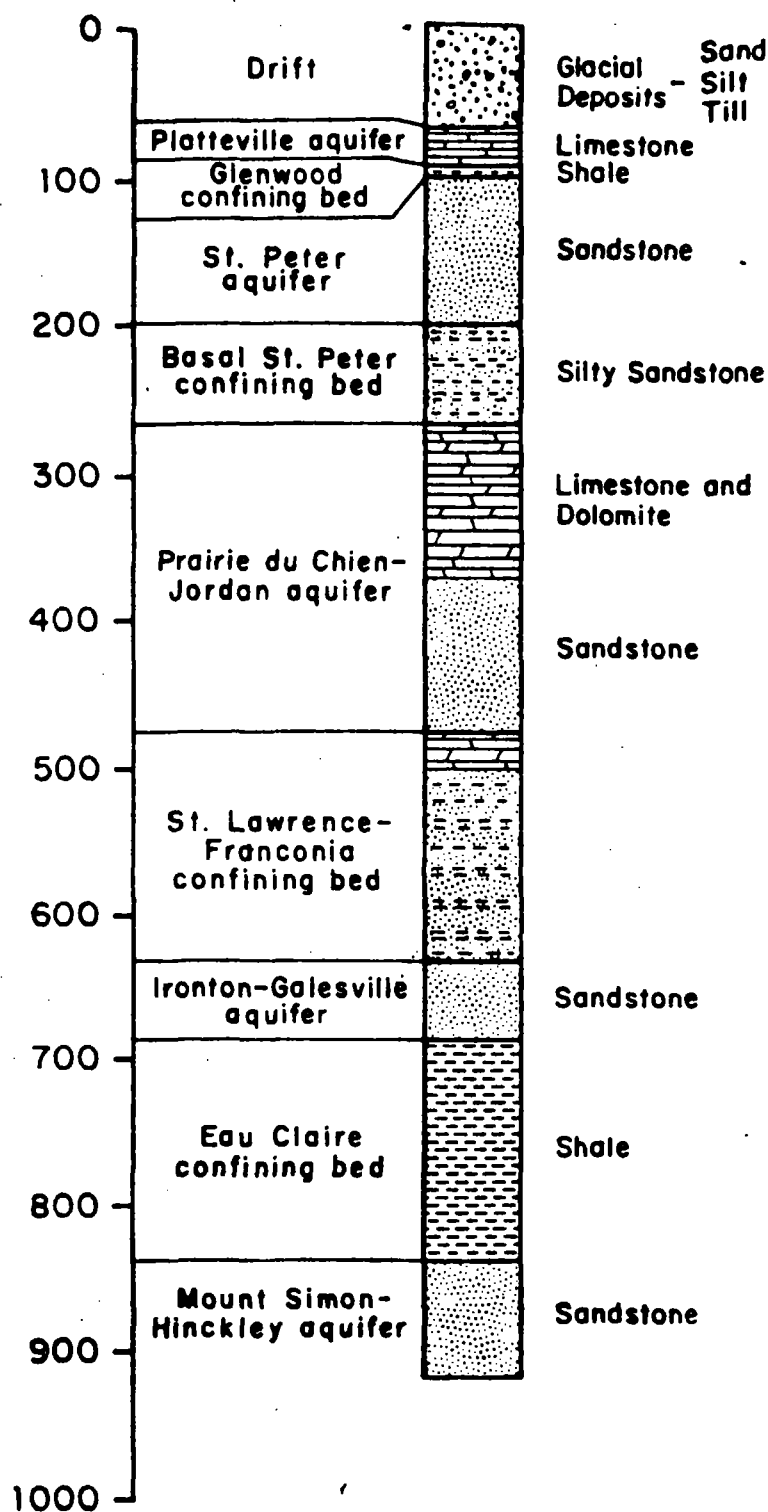
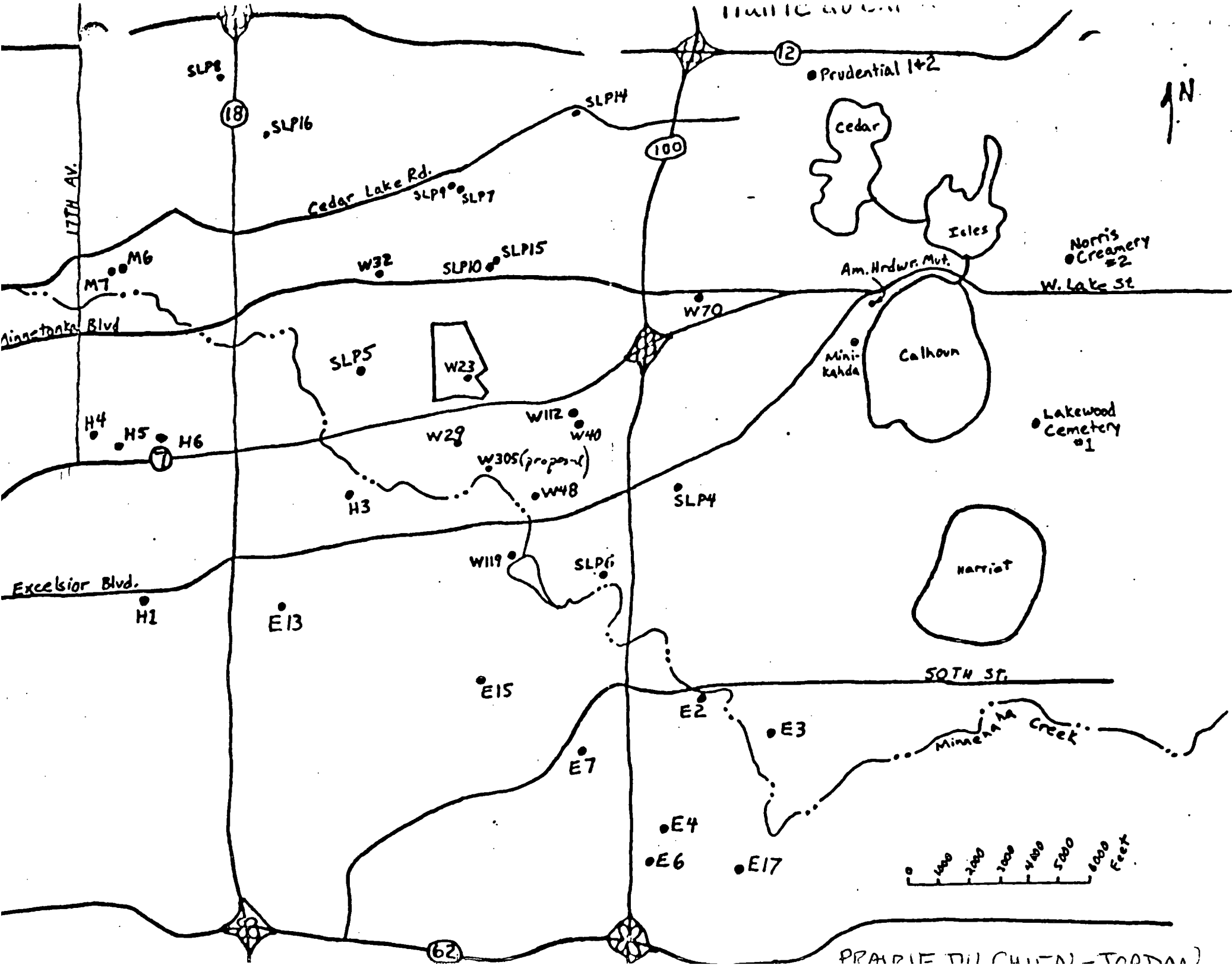


FIG. . GENERALIZED STRATIGRAPHIC COLUMN BASED
ON WELL LOGS FROM W 23 ON SITE
(AFTER HULT AND SCHOENBERG 1984)



To address these concerns, Congress enacted the Comprehensive Environmental Response Compensation and Liability Act ("CERCLA") in 1980. CERCLA provides in section 106(a), 42 U.S.C. §9606(a), the authority, similar to that found in section 7003 of RCRA, for the United States to sue responsible parties to remedy the contamination they created. But the new feature of CERCLA was the creation of the Superfund, a \$1.6 billion fund created to enable the United States to clean up the estimated 22,000 hazardous waste sites around the country. Under section 104 of CERCLA, 42 U.S.C. §9604, the United States, through the U.S. Environmental Protection Agency ("EPA"), may spend Superfund monies to investigate sites where hazardous substances have been released into the environment, such as the Reilly plant site, to design and implement remedial measures, and to bring enforcement actions to recoup these costs from responsible parties, such as Reilly.

Section 107(a) of CERCLA, 42 U.S.C. §9607(a), allows the United States to sue the parties responsible for releasing hazardous substances into the environment to recover its costs in investigating and remedying the contamination at the site, and to recover the costs of the lawsuit itself. The recovery of this money from responsible parties under section 107(a) is essential to the success of CERCLA for two reasons. First, there are an estimated 22,000 hazardous waste sites throughout the United States which threaten the environment. Congress recognized in 1980, when it enacted CERCLA, that the Superfund would not have enough money to clean up all the sites which needed to be addressed. In order to maximize the ability of the Superfund to clean up as many hazardous waste sites as possible, Congress intended that the United States recover from the parties responsible for pollution "all costs of ... remedial action," so that this money can be used again to clean up other sites. Second, for many of the sites which the Superfund will have to clean up, no responsible parties will be found or, if the responsible parties are found, they will be insolvent. Thus, where, as in this case, the responsible party can be found and is solvent, it is important that the United States recovers its past costs, so that this money can be used again to clean up other hazardous waste sites.

3. What the United States Expects from a Settlement

This is one of several major CERCLA cases filed in the first few years of the statute's existence. The United States has been successful in settling a number of these cases and would hope to reach a settlement in this case. However, in reaching any settlement in this case, the United States must achieve three things. First, the United

States must achieve a comprehensive remedy of all the problems posed by the release of hazardous substances into the soil and groundwater at the former Reilly plant site. The details of a comprehensive remedy are more fully described in the fourth part of this letter.

Second, the United States must recover substantially all of its past costs. As described above, it is essential to the success of CERCLA for the United States to recover from responsible parties its costs in investigating a hazardous waste site, designing and implementing a remedy, and in prosecuting enforcement actions against responsible parties. When representatives of the United States last met with Reilly on February 2-4, 1985, the United States had incurred \$2.3 million in connection with the Reilly site. Reilly offered only \$765,000, and made that offer conditional on the United States' accepting payment over five years without interest. Recently, Reilly has increased its offer to \$1 million; that sum is still less than half of the amount which the United States' has incurred as of the date of its last settlement offer. Moreover, Reilly would still condition this offer on making payment over five years without paying any interest. Thus, Reilly's offer of \$1 million over five years has a present value of about \$650,000.

It is important to note that in this case, as in other CERCLA cases, the United States' claims for past costs increase as time goes on. See letter of March 1, 1985 from David Hird to Becky Comstock (copy enclosed). This is because the United States is continually incurring more past costs in taking remedial action at the site and in pursuing this lawsuit. In the last two months, the United States has entered into a contract to design and build a drinking water treatment plant for two of the drinking water wells (SLP 10 and 15) contaminated by pollutants which travelled through the groundwater from the deep well at the Reilly site. The United States is also undertaking a Remedial Investigation/Feasibility Study ("RI/RS") to design the remainder of the remedy necessary for the site. Moreover, the United States has incurred additional costs in vigorously prosecuting this lawsuit. As time goes, the United States incurs more remedial and litigation costs. Thus the amount which the United States would accept as a reasonable settlement offer also goes up as our costs increase. In essence, the United States' bottom line goes up, rather than down.

So that you may better understand the United States' claim for past costs, we have also submitted with this letter, a memorandum describing the legal bases of the United States'

claims for past costs and setting forth the amounts claimed.

The third component of an acceptable settlement agreement is a consent decree which adequately protects the interests of the United States in seeing that the remedy is properly implemented and preserves the right of the United States to take further legal action if necessary to protect the public health and environment. Recently, the Department of Justice and EPA published in the February 5, 1985 issue of the Federal Register an Interim Settlement Policy describing the terms of acceptable settlements in CERCLA cases (copy enclosed). The purpose of this settlement policy is to put all CERCLA defendants on notice as to what the United States requires in a consent decree and what is not acceptable. In addition to the Interim Settlement Policy, I am enclosing a copy of my letter of February 8, 1985 to Becky Comstock which described some of the flaws in the consent decree proposed by Reilly in early February. Recently, following my February 8 letter, Reilly has submitted a new consent decree which unfortunately preserves the flaws in Reilly's previous draft, which I pointed out in my letter.

4. The Remedy Requested by the United States

As in many other cases brought around the country involving pollution of groundwater, the United States is seeking a "permanent remedy to prevent or mitigate the migration of a release of hazardous substances into the environment." 40 C.F.R. §300.68(a). */ A permanent remedy for this site has several components:

a. Drinking Water Treatment. EPA conducted a series of studies to determine which is the most effective means of treating the contaminated water at two drinking water wells in the Prairie du Chien-Jordan, SLP 10 and 15, so that these wells can be returned to service. From these studies EPA determined that the most appropriate technology to effectively eliminate carcinogenic PAH's in the drinking water is granular activated carbon ("GAC") treatment. The City of St. Louis Park has wanted a GAC plant built as soon as possible. In August and September 1984, EPA gave Reilly an opportunity to build the GAC plant and Reilly initially agreed to do so. In fact in September 1984, Reilly told Judge Magnuson that it would build the GAC plant and have it

*/ This quotation comes from the National Contingency Plan, 40 C.F.R. Part 300. The National Contingency Plan was adopted under Section 105 of CERCLA, 42 U.S.C. §9605, to provide national guidelines to clean up hazardous waste sites.

constructed by Christmas, 1984. Reilly did not submit the design plans for the GAC plant to EPA until January 1985; those designs were inadequate. In March 1985, Reilly came into court and told Judge Magnuson that it would not construct the GAC plant after all. Following that announcement, EPA entered contracts to design and build the GAC plant. The design phase is underway and construction will begin this summer.

In the litigation, the United States will seek to have Reilly reimburse the United States for the costs of design and construction and to undertake the operation and maintenance of the GAC treatment plant.

b. The Drift and Platteville Aquifers

The drift and Platteville aquifers are the two shallowest aquifers in St. Louis Park. They are also the two aquifers most heavily polluted by Reilly through the release of contaminants from the swamp south of the former Reilly plant site. The contamination in these aquifers poses a substantial threat to the lower drinking water aquifers. Pollutants can migrate from the drift and Platteville aquifers into the deeper drinking water aquifers through multi-aquifer wells or in areas where confining beds are absent or eroded, such as in the buried bedrock valley south of the site. In order to remedy the contamination in these aquifers and stop the threat of contamination to other aquifers, additional samples need to be taken to determine the extent of the contaminant plume (how far the contaminants have gone in each direction). After the extent of contamination is determined, then a gradient control well system may be implemented. A gradient control well system is a system of wells through which contaminated water is pumped out of the aquifer and disposed of. The pumping action prevents the further spread of contaminants through the aquifers by pulling the contaminated water back into the pump out well from which it can be disposed.

EPA currently has in process a Remedial Investigation/Feasibility Study ("RI/FS") to investigate the extent of contamination in the drift and Platteville aquifers and to design a gradient control well system and look at other remedial options in these aquifers. In the litigation, the United States will seek to have Reilly reimburse it for the cost of the RI/FS and seek to have the court order Reilly to implement a gradient control well plan or reimburse the United States for the cost of implementing the plan.

c. The St. Peter Aquifer

The St. Peter aquifer may already be contaminated by pollution from the swamp which enters the St. Peter from the drift and Platteville aquifers in the buried bedrock valley, where these aquifers are hydraulically connected. The St. Peter is further endangered by contamination in the drift and Platteville seeping through multi-aquifer wells. There is already one drinking water well, SLP 3, in the St. Peter in the vicinity of the former Reilly plant site. Other drinking water wells may be dug into the St. Peter in the future. In order to protect the St. Peter from further contamination, remedial measures must be taken in the drift and Platteville. Moreover, the extent of contamination already present in the St. Peter needs to be investigated in order to determine what further remedial measures, including gradient control, are necessary. EPA is currently preparing to investigate the extent of contamination in the St. Peter as part of the RI/FS. The United States will seek to require Reilly to implement the necessary remedy or seek to recover the costs of the remedy from Reilly, if EPA implements the remedy.

d. The Prairie du Chien-Jordan Aquifer

The Prairie du Chien-Jordan is the principal drinking water aquifer in the St. Louis Park area. Because the Prairie du Chien is a dolomite aquifer contaminants may travel rapidly in solution channels in the aquifer and respond quickly to pumping stresses caused by major wells open to that aquifer. The aquifer has been contaminated by the coal tar. These contaminants entered the aquifer via Well 23, the deep well in the center of the former Reilly Tar site, both through the coal tar plug and through holes in the casing of the well. From there coal constituents, such as PAH and phenolics, have contaminated drinking water wells to the north (wells SLP 7, 9, 10 and 15) and to the south, south east and southwest (SLP 4 and 5, and H3). The seven wells are all major municipal water supply wells. They are now closed due to contamination by PAH. Over time more pollutants will travel through the groundwater to these drinking water wells and more wells will become contaminated. */ In order to remedy the contamination in this aquifer, a gradient control well (or

*/ Reilly's own consultant, Environmental Research and Technology, predicts that five more large municipal water supply wells (SLP 6, E2, E3, E4, and E6) will become contaminated within the next 50 to 90 years. (ERT, page 161).

pump-out well) system needs to be implemented. By strategically locating gradient control wells and pumping at appropriate rates, the plume of contamination can be drawn back to the source, Well 23, and to other pump out wells, and contaminated water can be taken out of the aquifer. Since the outer boundary of the contaminant plume is not known at this time, several more monitoring wells should be installed so that the gradient control wells are optimally located. In addition, a series of monitoring wells needs to be established to monitor the effectiveness of the gradient control well system.

In the litigation, the United States will seek to have Reilly implement the gradient control and monitoring well systems. Alternatively, the United States will implement the systems itself and seek reimbursement from Reilly.

e. The Ironton-Galesville aquifer.

The Ironton-Galesville aquifer has also been contaminated by the coal tar found in Well 23. That aquifer was directly exposed to the plug of coal tar in Well 23 over the entire length of the aquifer. The area of contamination appears, at this time, to be close to the site. Therefore, the best means to remedy contamination in this aquifer may be to use Well 105, also located on the former Reilly plant site, as a pump out well to remove contaminated water from the Ironton-Galesville aquifer. In this litigation, the United States is seeking to have the court order Reilly to pump out the contamination in the Ironton-Galesville, or to reimburse the United States for the costs of doing so.

f. The Mt. Simon-Hinckley Aquifer.

Mt. Simon-Hinckley is the deepest aquifer. Well 23 was open to the Mt. Simon-Hinckley, and coal tar from that well was carried into the Mt. Simon-Hinckley as well as the Prairie du Chien-Jordan and Ironton-Galesville aquifers. Water samples taken from the Mt. Simon-Hinckley aquifer during the cleanout of Well 23 show that the aquifer is contaminated. However, in cleaning out Well 23, a bailer became lodged between the Ironton-Galesville and the Mt. Simon-Hinckley, so that a full investigation into the lower aquifer was impossible. EPA is considering whether to dig at least one new well, near Well 23, into the Mt. Simon Hinckley to determine the extent of the contamination in that aquifer. A new monitoring well could be transformed into a pump-out well to remove the contaminated water found there. In the litigation, the United States will seek to have Reilly implement an appropriate remedy for the Mt. Simon-Hinckley or reimburse the United States for the costs of doing so.

g. Multi-Aquifer Wells.

As mentioned earlier, there are a number of multi-aquifer wells open to the drift, Platteville and St. Peter aquifers. These multi-aquifer wells provide pathways by which contamination in one of the upper two heavily contaminated aquifers may reach the St. Peter, a drinking water aquifer. In order to protect the St. Peter, these wells need to be located and properly abandoned to prevent interaquifer flow. In this litigation, the United States will seek to have the court order Reilly to locate and abandon these multi-aquifer wells. Alternatively, the United States will locate and abandon these wells and seek reimbursement from Reilly.

h. Surface Contamination.

The swamp to the south of the former Reilly plant site is full of black, contaminated soil, rich in PAH and other pollutants. A plan must be devised and implemented for covering ("capping") the swamp to prevent human contact with the contaminated soil and to reduce the rate at which pollutants in the soil infiltrate into the drift and Platteville aquifers. As part of the plan, some of the most heavily contaminated soil may need to be removed. EPA is currently in the process of devising such a plan as part of the RI/FS. Also, there are contaminated soils on the site itself. The United States is proposing that restrictions be placed in deeds concerning the former plant site to protect against problems which may arise in future construction on contaminated soil.

In this litigation, the United States is seeking to have the court order Reilly to implement this plan. Alternatively, the United States may implement the plan and seek reimbursement from Reilly.

I hope that this letter and the enclosed memorandum on past costs and EPA's Interim Settlement Policy will help you understand the United States' settlement position and aid you in the discussions. I look forward to meeting with you on April 4.

Sincerely yours,

Assistant Attorney General
Land and Natural Resources
Division



By: David Hird, Attorney
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Section

Enclosures

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